

The inventor Mr. Jinsaun Chen is the owner of the patent rights herein, as well as the inventor.

The Examiner also indicated that the original patent should be surrendered. This application included an offer to surrender the original patent upon an indication of allowable subject matter herein. Applicant will promptly comply when such occurs.

The Examiner has indicated that the reissue oath/declaration is defective, in that it needs to address errors which are being corrected in the reissue application, and that such errors occurred without deceptive intention. The original oath did indicate that such errors occurred without deceptive intention, but applicant will submit a more detailed declaration. To summarize, however, the parent patent application was prepared on behalf of the inventor by Taiwanese counsel in Taipei, Taiwan. The inventor speaks very little English and relied upon his Taiwanese counsel to prepare the application and its claim. Taiwanese counsel, in turn, was not familiar with United States patent practice and the patent application was prosecuted with a single claim which was too narrow. Until the inventor was advised by United States counsel after issuance of the parent patent he believed that the single claim would cover his invention. Upon an explanation by U. S. counsel of U. S. patent practice the inventor realized that his invention was not adequately protected by the parent patent and therefore proceeded with this broadening reissue application. The errors that arose then are directly related to an inadequate understanding of U. S. patent practice by the inventor and an inability to communicate in English.

It is requested then that the attached substitute declaration be accepted thereby fulfilling the inventor's requirements for a reissue oath/declaration.

The Examiner has objected to the drawings and attached hereto is a separate letter requesting approval of drawing corrections. The drawing corrections are primarily limited to use of reference numbers which are keyed to text changes proposed in the instant specification. The actual circuit diagram has not been changed.

The Examiner has objected to certain of the claims as being in improper dependent form and to other obvious informalities. By this amendment the claims originally submitted have been rewritten, some claims canceled, and the remaining claims amended to properly depend from the independent claims involved. In addition, certain new claims have been added to more accurately reflect the structure of the circuits shown in Figures 1 and 2.

Claims 2-37 stand rejected under 35 U. S. C. 112, first paragraph, as containing subject matter which is not described in the specification. The Examiner has enumerated in paragraph 10 of the Office Action a number of problems with the specification. By this amendment applicant has attempted to describe in the specification what is shown in the circuit diagrams of Figures 1 and 2. For example, the Examiner indicates that a variable capacitor diode is not shown. However, such a diode is shown in, for example, Figure 1, and is now labeled as VD1. Further, the Examiner has indicated that the specification fails to disclose a wireless microphone transmitting system. The transmitter circuitry however is shown in Figure 1 and is now described in the proposed amendment to the specification. Since the word "microphone" is objectionable, since it does not appear in the parent case, applicant has deleted that word. A microphone, however, is a transmitter.

The Examiner questioned whether a signal processing circuit is described, and that circuit is shown in Figure 2 and now identified as reference number 202.

The Examiner questioned the term “internal adjustable” and the second variable capacitor diode adjustable by VR1. VR1 has now been identified as a variable resistor in Figure 1. There is a VR1 shown in Figure 2 also. The discussion in the specification proposed by this amendment merely describes what is shown in the circuit diagram. Similarly, the first and second variable capacitors, VCA and VCB, are shown, and their operation is well within the skill of an ordinary practitioner in the art as they are used to mix the signals and down convert the high frequency signal received at the antenna to a usable frequency within the circuit.

The operation of the power control circuit 102 and 203 is also described in terms which would be obvious to an ordinary practitioner in the art upon reading the circuit diagram shown in Figures 1 and 2. References to television, compact disc player and the like and a plurality of earphones have been deleted. However, this invention clearly will cover use with any audio device or any number of audio devices. The variable capacitor diode, as indicated above, is now identified VD1 in the drawings. The functioning of the external and internal dual adjustable oscillatory frequency regulating circuit, 103, and 201, and the signal processing circuit 202 is now identified in the proposed drawing corrections and described in the application amendments proposed.

The detailed function of the external and internal dual adjustable oscillatory frequency regulating circuit 103 is such that at the factory level, technicians will precisely calibrate the VCA and VCB to a predetermined frequency, such as 912MHz, 434MHz, 2.4GHz or 863MHz. The adjustment of VCA and VCB can be monitored by a frequency counter, frequency spectrum and an oscillator scope to observe frequency oscillation. The adjustment of VCB aims to regulate the Variable Capacitor Diode, VD1, to a certain

frequency. The adjustment of VCA can then be followed to set an ideal frequency to allow the transmitter to maximize output to the OSC for oscillation. In the event that a user finds a present frequency is subject to interference he can fine tune the frequency by adjusting a control knob, which is accessible from the exterior of the product. The control knob permits adjustment of the Variable Resistor VR1 which provides +/-MHz range to reset the frequency.

At page 6 of the Office Action the Examiner objects to the word "consists" in claim 33, objects to claim 34 and to the use of the term "wireless microphone" in claim 36. That language has been removed from the case. The Examiner rejected the claims under 35 U.S. C. 112, first paragraph, as containing subject matter which was not described in the specification in such detail to allow one skilled in the art to practice the invention. It is respectfully requested that rejection be reconsidered and withdrawn in view of the attached amendments and the following description.

There was a problem in the parent application concerning VCA and VCB which are in fact variable capacitors, as shown in the drawings, and not variable resistors. The variable resistor is VR1 also shown in the drawings. To reiterate their functions, specifically, the internal and external dual oscillatory frequency regulating circuit, 201 in Figure 2, is able to produce a first intermediate frequency in the range of approximately 10MHz to 230MHz or more. When a signal coming from the receiver unit antenna at a frequency, for example, of 912MHz, is amplified by the RF amplifier it is further mixed with the first downconverted frequency which is internally pre-adjusted to VCA and VCB (e.g. 981MHz) and results in 69Mhz as the first IF. As is well known to those skilled in the art, VCA and VCB are precisely adjusted in the factory by technicians to predetermined frequencies. The

adjustment of VCA and VCB can be monitored by a frequency counter, frequency spectrum and an oscillator scope to observe the frequency oscillation. The adjustment of VCB aims to regulate the variable capacitor diode to a certain frequency and then the adjustment of VCA can be followed to set an ideal frequency that will allow the transmitter to maximize output to the OSC for oscillation. Subsequently the variable resistor VR1 can provide a +/- 1MHz range to reset the frequency as in fine turning to avoid interference. This adjustment may be made externally by the user/consumer. See Column 1, lines 52-56.

If the local oscillatory frequency is at approximately 1GHz it is almost ten to twenty times more than then the second oscillatory frequency. When VR1 is varied, the center output electrical level fluctuates and varies with the adjusting of the resistance. The variable capacitor diode VD1 is controlled by VR1 and therefore they induce the DR to vary its oscillation. Meanwhile, Q1 also varies its oscillatory frequency. The frequency controller VR1 is typically capable of controlling the VCO to a range of +/-0.5 to +/- 2MHz. The VCA and VCB can be controlled by technicians to broaden the frequency range to +/- 3MHz. Therefore the capacity of transmitting frequency variation is far better than with the use of a conventional SAW. In the receiver unit, when users adjust the frequency controller VR1, the center electrical output varies. The VCD is controlled by VR1 to induce DR to vary its oscillation and further result in the oscillatory frequency of Q1. In this way the frequency controller VR1 is capable of controlling VCO's variation within the range above identified.

The Examiner rejected claims 2-37 under U. S. C. 112, second paragraph for a variety of different indefinite features. Those claims have now been either canceled or revised to correct problems raised by the Examiner.

Accordingly, applicant now considers this case in condition for allowance and an early notice thereof is respectfully submitted.

**The Examiner's attention is drawn to the change in address for the applicant's undersigned attorney. Please make the necessary changes to reflect the address as shown below.**

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Donald C. Casey". The signature is fluid and cursive, with the first name "Donald" and last name "Casey" clearly distinguishable.

Donald C. Casey  
Registration No. 24,022

311 North Washington Street  
Suite 100  
Alexandria, Virginia 22314  
(703) 548-2131 DCC:slv  
**Date:** March 3, 2000